

## CLAIMS

What is claimed is:

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1. A recombinant protein comprising peptides that contain antigenic epitopes from two or more stages in a life cycle of *Plasmodium falciparum*.
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2. The protein of Claim 1, wherein the peptides are selected from the group consisting of SEQ ID NOS:3-25, fragments thereof, combinations thereof, and conservative substitutions thereof.
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3. The protein of Claim 1, comprising the amino acid sequence of SEQ ID NO:2, fragments thereof, or conservative substitutions thereof.
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4. The protein of Claim 1, further comprising a signal peptide, polyhistidine, and a T-cell helper epitope.
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5. The protein of Claim 1, wherein the stages are selected from the group consisting of sporozoite stage, liver stage, blood stage and sexual stage.
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6. The protein of Claim 1, encoded by the nucleotide sequence of SEQ ID NO:1, fragments thereof, or conservative substitutions thereof.
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7. A method of enhancing an immune response of a human or animal to *Plasmodium falciparum* comprising administration to the human or animal of an effective amount of a protein composition comprising a recombinant protein in a pharmaceutically acceptable carrier, the recombinant protein comprising peptides that contain antigenic epitopes from two or more stages in a life cycle of *Plasmodium falciparum*.
8. A protein composition comprising a recombinant protein in a pharmaceutically acceptable carrier, the recombinant protein comprising peptides that contain antigenic epitopes from two or more stages in a life cycle of *Plasmodium falciparum*, wherein the protein composition is immunogenic when administered to a human or to a nonhuman animal.

Cont  
Sub  
a2

$$Add \quad a^3$$

Year	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	